

Name Key

Date _____

Ch 8 Review
204

Open textbooks to p. 464 (#s7-22) Show work below the questions.

7. What is the shape? square
What is the formula? $A = s^2$
What is the area? 49 ft^2

$$7^2 = 49$$

8. What is the shape? Rectangle
What is the formula? $A = bh$
What is the area? 20 cm^2

$$A = 5 \cdot 4$$

9. What is the shape? Triangle
What is the formula? $A = \frac{1}{2}bh$
What is the area? 14 m^2

$$A = \frac{1}{2} 4 \cdot 7$$

$$2 \cdot 7$$

10. What is the shape? Parallelogram
What is the formula? $A = bh$
What is the area? 104 in^2

$$A = 13 \cdot 8$$

11. What is the shape? Rhombus
What is the formula? $A = \frac{1}{2}d_1 \times d_2$
What is the area? 60 mm^2

$$\frac{1}{2} 10 \cdot 12$$

12. What is the shape? Trapezoid
What is the formula? $A = \frac{1}{2}h(b_1 + b_2)$
What is the area? 45 yd^2

$$A = \frac{1}{2} 6(6 + 9)$$

$$3 \cdot 15$$

$$45$$

13. What is the area of rectangle? ~~36~~ 36 m^2
What is the area of the square? 9 m^2
Area of the overall shape? ~~45~~ 45 m^2

$$\text{Rect } 9 \cdot 4 = 36$$

$$\text{Square } 3^2$$

$$36 + 9 = 45$$

14. What is the area of triangle? 7.5 ft^2
Area of the ~~parallelogram~~ trapezoid? 22 ft^2
Area of the overall shape? 29.5 ft^2

$$\Delta A = \frac{1}{2} 3 \cdot 5 = 7.5$$

$$\begin{array}{r} 22 \\ + 7.5 \\ \hline \end{array}$$

$$\square A = \frac{1}{2} 4(5 + 6)$$

$$2 \cdot 11$$

$$22$$

15. What is the shape? Circle
What is the area formula? $A = \pi r^2$
What is the area? $4\pi \text{ m}^2 \approx 12.6 \text{ in}^2$
Circumference formula? $C = \pi d$
Circumference? $4\pi \approx 12.6 \text{ in}$

16. What is the shape? Circle
 What is the area formula? $A = \pi r^2$
 What is the area? $9\pi \text{ m}^2 \approx 28.3 \text{ m}^2$
 Circumference formula? $C = \pi d$
 Circumference? $6\pi \approx 18.8 \text{ m}^2$

$$A = \pi 3^2$$

$$9\pi$$

$$C = 6\pi$$

17. a. What is the central angle? 130°
 b. Area of the circle? 25π
 c. Fill in the proportion and solve.

$$\frac{a?}{360^\circ} = \frac{x}{b?}$$

$$\frac{130}{360} = \frac{x}{25\pi}$$

$$x = 28.4 \text{ ft}^2$$

18. a. What is the central angle? 60°
 b. Area of the circle? 64π
 c. Fill in the proportion and solve.

$$\frac{a?}{360^\circ} = \frac{x}{b?}$$

$$\frac{60}{360} = \frac{x}{64\pi}$$

$$360x = 12063.7$$

$$x = 33.5 \text{ mm}^2$$

19. Area of rectangle? $192 \text{ cm}^2 16 \times 12$

$$\text{Area of circle? } 36\pi \text{ cm}^2 \pi 6^2$$

$$\text{Area of shaded region? } 78.9 \text{ cm}^2$$

$$192 - 36\pi =$$

$$78.9$$

20. What is the shape? Triangle
 What is the formula? $A = \frac{1}{2}bh$
 What is b? 10m

$$80 = \frac{1}{2}b \cdot 16$$

$$80 = 8b$$

$$10 = b$$

21. What is the shape? Parallelogram
 What is the formula? $A = bh$
 What is h? 13in

$$104 = 8h$$

$$13$$

22. What is the shape? Trapezoid
 What is the formula? $A = \frac{1}{2}h(b_1 + b_2)$
 What is b_1 ? 7ft

$$126 = \frac{1}{2} 12 (b_1 + 14)$$

$$\frac{126}{6} = \frac{6(b_1 + 14)}{6}$$

$$21 = b_1 + 14$$

$$7 = b_1$$